Oral History
of
David Lenhart

Interviewed by:
Jerry C. Grover

Date of Interview: September **5,** 2014

Location of Interview: Portland, Oregon

Interviewer(s): Jerry C. Grover

Approximate years worked for Fish and Wildlife Service: 33 +

Mentors: George Black, Leo Couch, Dan Slater, and Homer Ford

Colleagues: Bill Hazeltine, Jack Savage, Mark Morton, Norm Chupp, Dick Myshak, James Teeter, and Roger Allan, John Chattin

Offices and Field Stations Worked, Positions Held: Matanuska Valley, Alaska, 1955, GS-5 doing creel census, fishery sampling surveys; 1956 GS-5 Umatilla, Oregon, doing bird and fish counts, waterfowl surveys Columbia and Snake River, Oregon and Washington; Portland Regional Office 1958-'61 as GS-7/9 in River Basin Studies as a wildlife biologist; Sacramento Office 1961-1966 as a GS-11 wildlife biologist; Portland, Oregon 1966-1986 as GS-12 under Wildlife Services, responsible for chemical and pesticide use on refuges and hatcheries; two-month detail in Washington D.C. as National Response Coordinator for Ecological Services; was in Ecological Services for Washington, Oregon, and Idaho. Has also been the following: Regional Environmental Coordinator, Regional Acid Rain Coordinator, at times was the Regional Raptor Coordinator and Regional Coordinator for investigation of Fish and Wildlife mortalities.

Most Important Projects: Heptachlor, Kesterson, Rogue Basin, Trinity Reservoir, Santa Barbara oil spill, Wild River Surveys, Waterfowl surveys, Sikes Act.

Brief Summary of Interview: Dave talks about his early life, going to college Humboldt State U. in Northern California, being drafted into the military 1952, served in the Veterinarian Corp, going back to college, and getting on with the Fish and Wildlife Service. He talks about the many jobs he's had within the Fish and Wildlife Service, many of the people he's worked with or knew, and stories of his time with the Service. He also talks about many of the issues that he dealt with, including issues with heptachlor, developing various response plans, developing a pesticide monitoring program for starlings, water drainage issues such as at Kesterson, doing a two-month detail in Washington, D.C., and heading up DDT studies on robins, grouse, and juncos. He shares what he feels are the two highlights of his career, and also mentions who his mentors were. Dave retired from the Fish and Wildlife Service on January 4, 1986.

Dave Lenhart, September 2014 – Age 84

THE INTERVIEW

Jerry: This is Jerry Grover, a retired Ecological Services & Fishery supervisor in the Portland Regional Office. I'm in the home of Dave Lenhart in Portland, Oregon, doing this oral history. Joining us today is Dave's wife, Judy, and my wife, Judy, is also sitting in on this interview. The purpose of this interview is part of a program to preserve the history, heritage and culture of the U. S. Fish & Wildlife Service through the eyes of its employees. Dave, would you state your full name for the record, and your birthday.

Dave: My name is David James Lenhart; confused a little bit in high school, I was known as Jim until going into college. My birth date is November 6, 1930. As a little aside, I weighed two pounds, thirteen ounces. I was put in a shoebox in the oven; it was turned on to keep me warm. I was born in Des Moines, Iowa. And that's where I started school and lived until about 1944 when we moved to California.

Jerry: Also for the record, where and when did you retire? What was you position and grade?

Dave: I retired on January 4, 1986 from the Portland Regional Office. My position at that time was GS-13 Fish and Wildlife Biologist, Contaminant Specialist

Jerry: You moved in 1944?

Dave: Yes. Actually I was in junior high and when I came to California they put me ahead a half of a year in Downey, California. Now in Iowa, my dad worked in a sporting goods stores, he was a champion fly and bait caster. And so we did a lot of walking with him when he went hunting or fishing, or went to contests, so that's where I kind of learned about the outdoors.

Jerry: You said you were an only child and you had a trip to California in '39.

Dave: Yes. We went to the San Francisco World's Fair, and we went to all the places like the Painted Desert, the Badlands of Grand Canyon, et cetera. And of interest, the National Fly and Bait Casting Tournament was held as part of the World's Fair in San Francisco's Golden Gate Park. And dad being an Iowan, of course, went out on San Francisco Bay and caught a salmon, which made it exciting, so based on our trip, we determined that we would eventually move to Downey, California, and so that's where I ended up in 1944.

Dad, during the war, worked both in an ordinance plant and tested military ammo in Iowa and in the 6th Ferry Command in Long Beach, California. We hunted and fished during that period and made trips to Yellowstone Park. I attended high school at Downey Union High School in California, and graduated in 1948. And then went to Fullerton, California Junior College, which was nearby, and graduated from there, and transferred to Humboldt State to get my Bachelor of Science degree. During the interim I got my draft notice in 1952, and went into the Service and ended up in the Veterinarian Corps of the U.S. Army. So all my officers were veterinarians, many of them drafted like I was, and I was in the Meat and Dairy Hygiene Food Inspection. So I worked in slaughter houses, packing houses, etc. etc. on all sorts of products, meat and dairy products including fish, chicken, eggs, things of this sort.

Jerry: So was your teaching so far in your degree or your…?

Dave: I started out in kind of like Fish and Wildlife Management basically in Junior college -- it's just you take all the science. When I went to Humboldt, I started it in January of '52, in a semester school basis. So I took a variety of both fish and wildlife courses, then I was drafted, and then I came back out in September of '54 in essence for my junior and senior year at Humboldt State.

Jerry: Okay, Humboldt State at that time was no longer Humboldt State Teacher's College; it had developed the school of forestry…

Dave: It was part of the state college system and it just started forestry, I think……in '54. The fish and wildlife students was 10% of the student body. We had over a hundred students in there and there were about 900 other students.

Jerry: Did you live on campus?

Dave: Did both. I started in the regular Redwood Hall Dorm. In the summer of '52, I worked for California Department of Fish and Game on Grizzly Island Wildlife Refuge in California. And generally, the work there, in the summer it's dried up rice lands and farming so there was not much wildlife there, but we put in a phone line. It was on an island, we had no fresh water to drink, we had to get there by ferry boat, which required that we go back and forth at least once a week to get water. So I had a lot of free time on the island. Grizzly Island is out of Fairfield. It is near Travis Air Force Base, very close to Suisun Bay.

And then when I returned to college at Humboldt, I majored in Fish and Wildlife and my emphasis was on the wildlife, but I took many fisheries courses and even ended up taking one forestry course. As every student was required, when they were a senior, to have a special project and my project was banding waterfowl. And I probably banded about four or five hundred ducks and coots, the majority being about three hundred coots, which is extremely unusual.

Jerry: Well, coots were a big issue and a problem in California and the Central Valley at that time.

Dave: And the location was on a gun club in tide water Humboldt Bay. The water was generally fresh, but the depths changed with the tides, so learning how to set the trap where birds could walk out of, if on dry, or swim out on the wetland; it's a clover leaf trap, so that was good experience for me later in my career. While I was in college, I worked two times at the Department of Fish and Game, Pheasant Co-ops they called it. The state had a cooperative program where they generally release pheasants on some of the islands in the delta, open the pheasant season and we'd check the hunters in and out on that. So I had those two periods of working for the state in addition to the previous on the waterfowl area.

Jerry: Did this interfere with your schooling? It sounds like pheasant season…

Dave: They would let us off; it was around Thanksgiving, I think. So then in '55, I got out of school a little bit early; I took my finals early and went to Alaska Territory, before Alaska was a state. Worked for the U. S. Fish and Wildlife Service in 1955 in the Matanuska Valley, Palmer, and Wasilla, Alaska, doing creel census, fishery sampling, surveys, etcetera; the Matanuska Valley is where the old homesteaders lived from the '30's. And I ran into homesteaders that knew part of my family from Minnesota, so I was treated like a king when I was in Alaska. And I was offered three or four jobs when I was there to stay, but I said I had to go back to college and finish my degree. My fisheries supervisor was Roger Allan.

Then in the senior year, probably about January/February, I got a telegram from U.S. Fish and Wildlife Service offering me a job at Wenatchee, Washington, or Umatilla, Oregon, and state my preference in wildlife river basin studies; no description of the job just fact: "it's open." So I said I would take either position, never heard back. So at school I had an opportunity to go work for California Fish and Game, it would be a summer; it would be a long position until I could get on the Fish and Game register. Or I had an offer from the Inter-America Tuna Commission, which looked good; it paid more than the federal government except you didn't put your money into the federal retirement system. And the other was, the Tuna Commission was a thing that could be abolished, but has stayed on periodically now for 50 years.

Jerry: Did you have your degree by then as you graduated in June 1956?

Dave: Yes, well they knew I'd graduated. Then about a month before my graduation, I got the same telegram from U. S. Fish and Wildlife Service. And so I'd take either one; I got a notice that I would be employed at Umatilla, OR. And I should meet my supervisor in front of the Umatilla, OR Post Office…

Jerry: In Oregon.

Dave: …in Oregon either the night of, I'll just come up with a date like June 5th, or the evening of June 6th. So being that I was driving through Portland, I stopped at the Regional Office and asked about the job; I didn't know what it was. They didn't know who I was. My supervisor was in the field in Wenatchee placing the other position, which was Norm Chupp, a graduate of Idaho, University of Idaho, with his Master's degree. And so I found out that the job was that the Corps of Engineers transferred money for John Day Lock and Dam on the Columbia River, Oregon, and Washington. I was to ascertain what effects this dam would have on wildlife, and so the instructions were to do surveys, populations, get maps and draw in where the Reservoir pool would be, wetlands, if there could be marshes formed, if the Service could have some of the corps lands, etc., etc. At the same time, I was asked to do the Snake River Ice Harbor Dam, which is out of the Tri-cities of Pasco, Washington, to do the same thing for that dam. the John Day pool flooded seventy-seven mile of the Columbia River and the ice Harbor pool, thirty-five miles to the Snake River.

Jerry: That was out of the main stem Columbia.

Dave: On the main stem Columbia River in Washington state. Norm Chupp had four proposed PUD Dams on the Columbia River out of Wenatchee. He only did migratory bird studies. the other Fish and Wildlife studies were done by Washington State biologists. The first thing I did, the John Day pool was 77 miles long, and here I was with a vehicle and a pair of binoculars. And so I started out and I would go out and I'd divide the river into seven sections, some of it accessible by direct highway, some you could walk down to the river. And I'd cover 10 miles a day, which is 20 miles round trip; I walked it out, and I tried to cover the area that flooded and surveyed wildlife populations. Now this is in June, this is after the geese had hatched, going into July they're flightless, both the young ones and old ones. So I was able to determine the number of birds that I saw, but where they went, where they brooded, where they went up the banks to get insects and eat the greens to grow when they were flightless. The Columbia River reach contained about forty islands that were used by nesting Canada Goose and wintering water foul.

Then I had, as part of that, I, of course, met with the Washington Department of Game people, and the Oregon Department of Game and their local biologists. And I worked with them on various pheasant surveys, quail surveys, dove surveys; I also interviewed into local ranchers and checked bird hunters. No fishery biologists, so I also did fishery surveys and things of this sort. They hired a fishery biologist in September/October 1956, and I was told to meet him at the bus depot at 6:00, they didn't say am or pm. So you know how that went. He arrived on the 6:00 in the evening from New Mexico. The first thing he asked was, "Where are my boots? Where's my boat? Where's my thermometers?" Of course, nothing of that was furnished; I didn't even have a typewriter. The Fishery Biologist was Jack Savage a recent college graduate from Colorado State University.

Jerry: When did you meet your boss?

Dave: I met him/boss, Bill Hazeltine on June 5th, 1956, he gave me a Government car, and he stayed the night and I put him on the bus to go back to Portland.

Jerry: Who was he?

Dave: Bill Hazeltine, Irving Billy, but it was Bill Hazeltine, who worked in the Regional Office.

Jerry: So in September you have this new biologist on board, no boats, no boots, no thermometers, no nothing.

Dave: Yeah. And so I got a place I rented. I learned that I would not be counting fish, but I'd be doing these wildlife surveys; I did comparable. On the Columbia River you could drive **the Oregon side** from literally the mouth of the John Day River all the way up to Umatilla McNary Dam. The road, you could almost see the river everywhere. There were some old abandoned highways and railroads; you could drive to the river. On the Washington side, the river was only accessible only to a town called Roosevelt, and then there was no road along the river. So there was an area that I really could not cover. There were a couple jeep roads where I could walk down through a canyon to the Columbia River, and so I would do observations and counts there. The major thing was the goose populations that nested on the river islands would all be destroyed by the pooling of the water; but there would be some islands formed. There was approximately, I think, over 40 islands, some of them very major, some small that the geese nested on. Washington Department of Game had done surveys in Washington State on the island previously, so we knew approximately 250 geese nested on those islands. So that was the next year in April we would start out on the goose nesting surveys by boat.

So then in September, I would fly, rent an airplane and a pilot every two weeks and fly that 77 mile reach of the Columbia River and reach the Snake River, I think was about 35 miles, and survey waterfowl or other observations. If I saw fishing boats on the river or not, and I did that for literally three years, and flights would start in September and I would go through to about February. On part of my surveys, when I knew the geese were nesting I actually, two or three times, I would go out and fly aerial transects to see if I could flush geese and come up with a count. And then within the week, I would go back by boat with cooperators like Washington Department of Game would be with me, but it'd be a government boat. And we would survey those islands, and we'd come up with approximately 260, 270 nests, knowing there's still more nests that we probably missed and/or there'd be some in the cliffs. And so I would have that data, but I would also conduct the winter inventory for waterfowl. Now that's different in they count by county, and they count after January 1. So I'd fly the entire Snake River, probably a couple hundred miles up to Clarkston and Lewiston from the mouth. And I would fly by county down to The Dalles Dam, Klickitat County; extends pretty far. I was the first biologist to fly winter water foul surveys in this segment of the Columbia and Snake River. Over the years I probably made forty flights.

Jerry: Okay, let me ask you this quickly here now. What grade were you hired in?

Dave: 5

Jerry: You were hired as a GS-5- 484 wildlife biologist.

Dave: Yes.

Dave: Yeah, now remember, I was hired temporary not to exceed six months; I believed that. At three months, I went to California. I met George Black who was Fish and Wildlife Service doing the Klamath River, Trinity River, Eel River Studies. We interviewed, based upon all my background, he wanted to hire me.

Jerry: In the timeframe, this is after you've done the winter survey…?

Dave: After three months. September 1956.

Jerry: Oh, after three months.

Dave: 'Cause I thought I only had a job for three more months. And, of course, during this period I only met my supervisor once in three months. As an add on, the fishery biologist never met his supervisor for a year and a half.

Jerry: Who was the fishery person that was there?

Dave: Jack Savage.

Judy G: There's a name from your past, Jerry, (Judy laughing).

Dave: Okay, I'll explain, I'll explain.

Judy G: We could do a whole chapter on him.

Dave: When I was in Alaska, I was required to keep a daily diary and I did everything beautiful; you had to turn it in once to get paid and then the per diem. Okay. Now…

Judy L: And you still have it.

Dave: No, the Alaskan one you turned in. So I did the same thing when I was on my project. I had to turn in weekly reports, monthly reports, progress reports, meet with the Corps of Engineers what we were finding. This might be a moment in time; this is a letter of June 13, 1956, from the Regional Office of David Lenhart, post box in Umatilla, Oregon. And it points out if I traveled overnight, I had a per diem rate of nine dollars. Okay. And then they told me when my first check would come, found out the national per diem rate was twelve dollars, only Washington staff could claim that, Regional staff would get eleven. So think of eating and staying in a motel for nine dollars a day when you're single, you couldn't share. In the sequence of time we were confronted with how come everybody charges nine dollars, it should vary below nine dollars.

So we took our supervisor with the agreement next time we went on a field trip, we would stay at a little bit better motel, we would eat at a little bit better restaurants, and make sure we spent over nine dollars to show the supervisor that you couldn't really live on

the nine, and you couldn't live on eight or seven. So that was my career, so in Umatilla; I did these aerial flights.

A couple highlights was the fact that we were going to move Chupp out of Wenatchee. So I was tasked to cover the Columbia River, all those PUD dams over there. I took aerial flights over there and discovered so many power lines, it was impossible to fly low. And part of the fact was when I flew the Snake River I was the first one to ever discover salmon spawning on the lower Snake River. And it was in October, and the Snake River is always muddy, but on this particular flight it was kind of clear. I spotted salmon redds; I counted approximately twenty; I saw adult salmon from a couple hundred feet up. The pilot that I hired, this was all hired aircraft, he said, "Would you want to get closer?" Said, "Sure, that's okay." Unknown to me, he landed on the island in the Snake River. When we got out of the plane, he took the wheel covers off because he was afraid a rock would get caught and flip the plane; I didn't realize that rocks were so big. Well, if you ever get involved with fish spotting twenty feet under the water, there's no way you could see with the waves, their depth. Two weeks later on my waterfowl flight, I couldn't see them. A month later, when I flew, I could see the redds and a few dead salmon. So the next year, I got the fishery biologist I reported; the fishery biologist from Bureau of Commercial Fishery flew with me. And I found a few other spots in the Snake River where they spawned.

Also, when I flew the lower Snake, I discovered an Indian fishing from a platform. I discovered I could cross wheat fields, run across the fields, worked my way to the river; that was Fishhook Jim who was the last Indian fisherman on the Lower Snake River. His family would take him to the river, he would have to float into the site, he would build his platform, he had a tent, he built his platform, and then he kept a calendar so when Friday came he'd start fishing with a dip net and keep the fish because his family would come across the wheat lands and pick up the fish on Saturday and Sunday, then he would stop fishing. And so I did not take a photograph of Fishhook Jim, there were three islands across from him and I said, "Jim, there's people digging up the graveyards, there's people digging up the Indian graveyards out there." Washington State was digging there, but it wasn't them. And so anyway, in that interview, I had Jack Salvage with me, the fishery biologist. And later there was an article published about him in the paper and that land where he was, was actually Indian land and he was out of Umatilla Reservation.

Jerry: He was a Umatilla tribe.

Dave: Tribe, yes, but he was actually half Snake River Indian, I guess there's a different term they use for them and another half is Wanapum. And there's a park named after him now on the Snake River.

Jerry: Let's go back; a minute ago, you were talking about you went to California to interview because you thought your job was only going to be for three months.

Dave: Yes, I got a phone call.

Jerry: How did you get out of that pickle?

Dave: I got a phone call that says, "No, no, no." See they always gave you the six months so they could let you go without reason, they said, "No, no, we don't plan to let you go." And so then after the six months, they put me on permanent. But I didn't realize until I retired, I was, they didn't have me on social security or government retirement.

Jerry: For how long a period was that?

Dave: The first six months.

Jerry: So you lost six months' worth.

Dave: And then after, I think it was two years, I think I got my GS-7. Okay after two years, they transferred both Jack and I into Portland. And we were in what they called the Portland Regional Office; there was no Portland field office. While we were in here, see that was under Leo Lathe was the Regional Director at that time.

Jerry: Where was the Regional Office located?

Dave: In the Bonneville building. And in that building also was BLM, and Bonneville, and all the federal agencies; and Bonneville was Interior.

Jerry: And what Division were you in when you went in there?

Dave: They called it River Basin Studies. And we covered, then made up part of the Portland Field Office, which covered all of Oregon and Washington. River Basins had an office in Boise, and they had one in Missoula, Montana, I think a two- man staff, and they had one in Sacramento, which covered California and Nevada. And so they established a field office, so I was a wildlife biologist working on the reports and doing other projects; flood control projects, levees and dams, SCS projects, everything from the field office, which they separated a couple buildings down at a rental space.

Jerry: Did you get a promotion out of this?

Dave: Yeah, I ended up, I think, after a year or two years, and I got up into the GS-9.

Jerry: Who was your supervisor then?

Dave: Bill Hazeltine.

Jerry: He was still there.

Dave: Yes, and so then major projects there were working on the Rogue Basin. Leo Lathe had also retired; Paul Quick came in as Regional Director. In that period, the John Day Dam was under construction so there were many meetings I had to go to with both Washington Department of Game and Oregon because we also

had lands turned over to the state of Oregon as part of the evaluation. Now the lands that I picked out, I think it was like 33,000 acres.

Jerry: Okay, you're in the field office in Portland, and you're a GS-9.

Dave: Yeah, and I moved in there in '58. But I still continued studies on the Columbia River/Snake River.

Jerry: As a wildlife biologist?

Dave: Yes. And then they expanded, you know, there were three more dams besides Ice Harbor on the Snake River all the way to and Lewiston ID, so in part, worked on those. And we did, I would participate on the goose nesting studies every year after that because I had the boat with Washington Department of Games. Regress a little bit, I did, as part of this, I banded waterfowl with Oregon Department of Game; I think a thousand ducks we got, double banded them; in other words, put two different types of bands on same duck. Then went on the Atomic Hanford Reserve and with the Hanford biologist from Battelle and Washington Department of Game, and we herded and banded geese on Hanford, so I got to go on to Hanford. We banded birds also on McNary pool, Oregon and Washington.

Jerry: How many people were working with you at this time, or were you just a lone ranger?

Dave: I was the only Wildlife Biologist in Umatilla, OR. When I went to the Portland Field Office, they hired more people, transferred some in, so we had about six biologists on the field office.

Jerry: But no technicians or laborers?

Dave: No, not that regard. Now the major push was a huge series of dams purposed for the Rogue River Basin. And so a lot of that work was putting in the thermographs for measuring the water temperatures, seeing what quota of water we got, looking at dam sites, evaluating major fishery, establishing stream flow measuring sites. As part of that, a decision was made; instead of hiring a professional to do some of the temperature prediction studies, that we would do it, of course, none of us were trained. So I took a class at Oregon State in oceanography; it was very obvious I'd never been trained. So they eventually got a guy from Bonneville Power, I think he was actually from Cleon a transfer engineer, to do some of that work on temperature prediction. If you store so much in a reservoir at a certain temperature, what would you get out of it, like on Shasta Dam, getting cold water in the outlet. So in the process I worked with all federal agencies, including Indians, and I did the John Day Lock and Dam. I ended up with the major report; it was two reports. One on all the fish and wildlife aspects, and the other just on the waterfowl refuge proposal for the dam.

Why I bring this up is on a trip, much later date, to Washington D.C. on a two-month assignment for another purpose, I went to the basement of the Interior building in the Secretary's Office. And all of a sudden, I discovered, almost like a museum, it was a display of the Fish and Wildlife Service and each of their divisions: hatcheries, wildlife, law enforcement, and they had a little set up. And for River Basins there were three reports shown on the board, and two of them were reports I did, the John Day Lock and Dam and the **Satus Creek Yakima River** Project, Washington, of Bureau of Indian Affairs. So I felt that was a compliment that the two that the Washington Office chose as the best reports were the ones I prepared.

Jerry: And you did this as a GS-9?

Dave: Yes going up to 9. There was some more; we worked on Wenatchee. George Black was at our office, he came out of Alaska but he also worked on the Tracy Pumping Plant and he was responsible….

Jerry: Tracy was California?

Dave: Yes, the pumping plant **San Francisco Bay Delta**. What they did there is phenomenal in that they showed that they could move fish, keep fish out by not screening them by putting louvers in to change the water flows. And so they did, on a major project, and so they worked on this; they designed the louvers or what do you call it, the like a venetian blind turn on the side to adjust those to modify the fish movement, and they got national awards on that. George had worked in Alaska, had worked there, had worked in the Pacific, the Klamath Basin with stuff. And went to Bureau of Commercial Fishery after that. Might mention, when we were working here, they had the office in Eureka, George Black headed up North Coast Studies which included the Klamath Basin. They had one in Martinez working on the Delta, then they had the Sacramento Office with Dan Slater in charge. Well, I had an opportunity, an offer, to go for a promotion to an 11 to Sacramento. All this time I was a bachelor.

Jerry: What year was this?

Dave: That was in '61, maybe like September of '61; August or September. Unknown to me, when I went down, one of the problems they were having was that one of the fellows they had who they thought would travel in the field, literally refused to travel to the field 'cause his wife couldn't drive, so they needed somebody who could get out in the field. And so Slater brought me in at that time, and so I started out in that office in '61, and generally ended up being in charge of all the wildlife and all the Corps in the Bureau of Reclamation projects; that was when they were doing the Central Valley Project, Klamath Basin Project.

First one got involved in was Trinity Reservoir, which would flood out the deer herds and adversely affect the deer herds, take 75%, of the water out of the Trinity River, and pipe it to the Sacramento River over through Whiskey Town Reservoir and the power drops, and this gets pretty important. A net effect of that is when my folks retired, they retired on the Trinity River because I'd take dad up there fishing and he'd loved it and that's where they retired. **Jerry:** Dave, as we go on, what was it like being in the Fish and Wildlife Service in Portland with the group here, you had the Regional Office and the Field Office, what were the

relationships like with the other people? When at Humboldt State I fished the Klamath and Trinity Rivers in California.

Dave: It was a kind of unique period in that most of your supervisors were World War II veterans or graduated from college during the war or prior. And all the new guys were guys that had gone to college after the War, maybe they'd been in the Korean War or something like that, but it was kind of like the two groups, the older and the younger. I think they decided, there was a period of time when they felt all of a sudden they would lose all their older supervisors. I mean, it was like in five years practically everyone would be gone because of their age and retirements. So there was an effort then to kind of cultivate people, take them to training and give them some background experience. Now, when I went in, one of the things they gave me was a River Basin book and it told you how to evaluate projects, even gave you colored pencils, you'd get a map and you color in the rocks, the agricultural land, so you would have a historical record of it, like before and after. And when we did a river basin report, at that time, we actually wrote a basic data report. So if you were a fishery biologist, you would get all the fishery information you could, compile it in some statement, like if there'd been counts made, or anglers' surveys, or what; it'd be basic data, and that was your baby. Other words, you could write it any way you wanted, it wasn't something that was going to be published and sent out as a scientific document. So you had the freedom to do things like that, and if you interviewed somebody, you wrote it down.

Jerry: And you'd interact with the old guys, along with the new guys that are…

Dave: Yeah, yeah, and that's all it was. And then, of course, we were expanding at that time. Also occurred, which was probably traumatic to a lot of people, they separated the Bureau of Sport Fisheries and Wildlife to Bureau of Commercial Fishery; two things went on. One, they said they're getting rid of all the eight balls in Commercial Fishery, which wasn't true. But they found a way to get rid of some of the deadbeats over there, and some of the great people went over there; fish facility people, commercial people that worked on hatcheries and things of that sort. So it made a kind of situation where you lost a lot of intelligent people. We used to get into a situation, we worked in the Willamette Basin, and they had an office in Eugene. They did five or six reservoirs and they phoned us and said, "Hey, we have all the fishery done. What has river basins done, compiled?" We've done nothing; nothing was ever ordered to evaluate the wildlife. So one time I had like two months to survey about six reservoirs, determine if there're elk or deer, what the pressure was, the bear went in there.

Jerry: You never had any help from the state, I mean, deer are a resident species.

Dave: Well I personally did because of contacts made; remember, I started out immediately with the Department of Fish and Game and the Game Wardens in Oregon, which is in Pendleton, Dave Lumen?. He ended up being in charge of Upland Game and eventually Wildlife for the state of Oregon, so I had personal contact with people. The fishery biologist, the same way, you had guys you met as biologists in the field. I think we had excellent contact with fishery people in particular.

Jerry: As just as a recall here, you went to Sacramento and Dan Slater was the supervisor, you were a GS-11, wildlife biologist.

Dave: Yes.

Jerry: And your main responsibility?

Dave: Well, generally starting out, there were a lot of reports being written so part of it was to be sure that the wildlife aspects were in there properly, 'cause we'd send the report to Portland and then generally someone from Portland would come back with the report and say, "You need to add this. You said that it was oak grasslands, what kind of oaks are they?" We'd run into those sorts of situations. So the other thing, since I was a bachelor, whenever somebody visited from somewhere I would have to take them out on the weekends. So if they wanted to see the wetlands up in northern California, I would be the guy to take them up. So I got to meet a lot of interesting people. As I regress a little bit, Munson and Watson out of Alaska wanted to look at fish passage facilities on the Columbia River. And so I was able to take them out…

Jerry: On the Columbia River or the Sacramento?

Dave: No, on the Columbia, see that's when I was; that's kind of like an example. One of the examples down in California was that a Congressman, from Finland. He was from the Premier's Providence in Finland, the top gun, and he was a wildlife man in particular, and he was touring the United States. So they sent him to Cape Canaveral, they sent him to Texas shooting the missiles off, Puerto Rico to look at housing. I got him, I put him and his translator in the car and I started out from Sacramento and I drove through the old highway up to Redding, California. We stopped at Sacramento Refuge and saw the old gun clubs. I showed him the land was getting too salty to grow crops. I took him to Coleman Hatchery; when we crossed the bridge to Coleman Hatchery, I looked out the corner of my eye and I saw a guy getting out of a boat with about a 40-pound salmon. I backed off the bridge, drove underneath the bridge, there's a boat launching ramp there; they were hanging it up to weigh it. I had the two Finnish guys stand beside the big salmon and take pictures.

Anyway, when we ended up, in Redding, California and they wanted to go to Whiskeytown Dam and Reservoir. And I said, "Why do you want to go to Whiskeytown?" Well one, it was Kennedy's last stop before he was assassinated, and a public appearance; he dedicated Whiskeytown, they knew that, I didn't. The other was there's two creeks that flow into Whiskeytown: Brandy Creek and Whiskey Creek, and they wanted their picture taken by both Creeks so they could tell the people in Finland, "United States; Cognac flows free! Whiskey flows free!" And they said it was the best trip they had ever had, and they'd been here for over a month because everything else was these big things we were showing and they wanted to look at the land, they wanted to look at the fish, they wanted to look at the people.

When they saw those duck clubs out of Sacramento, there must have been about 50 buildings in these little private duck clubs; they're all little private but they all stay in the same place, some are little trailers and some are houses, literally. And you'd talk to them about how many millions of ducks fly through the valley.

We had the Shah of Iran come through right before my time, but his brother came through in the mid sixties. And after we showed him around, he invited us to go to Iran, except he didn't say anything about paying for the trip, says, "I'll have a place for you to stay if you ever get in Iran." But in Sacramento, Dan Slater has quite a history and he worked on the Sacramento River before the Shasta Dam was built as part of the Central Valley Project. One of his publications, I think, in a '56/'57 special scientific report, was on Sacramento River winter run chinook salmon. I was out with him in July up in Redding, California when a fisherman reeled in a big salmon. When he got it to shore, the salmon was spewing eggs; it was off the spawning bed. He told me at that time, he said, "That fills in all the data I need to write my publication." You're familiar with winter runs?

Jerry: Oh I am; I worked on them before I retired

Dave: Yeah, I've got more than that; you go through the 1880 census and you can pull out the Salmon hatchery on the McCloud River that flows into the Sacramento River. And there were Indians that worked at the hatchery…

Judy L: 1880?

Dave: …1880 census. And I pulled off the Indians that worked at the hatchery because they were in the survey. So anyway, Dan was a fabulous man to work for; he could do a lot of brain stuff. So the communication he had to improve on, so he had me do a lot of that with staff. And we hired, when I went there, we were in the federal building, which was a post office, probably a hundred years old in the old part of town, one window; we probably had ten biologists. And so we moved over to the new federal building, which is on the state capitol grounds and we had about fourteen, fifteen biologists when I was there, and I'd be in charge of the office when Dan was gone, which was a considerable part of the time.

Okay, one thing that office did, they proposed an Anadromous Fish Conservation Act. Dan had said, "Why should we be getting money from the Corps of Engineers, or Bureau of Reclamation, PUD's, other groups in California; each one has to go for budgets. Why don't we gather something for all hatcheries to fund it from one source instead of going to all these different sources?" But to get a special act Congress and Congressman Dingell got a hold of it, some others, and they made it into a national program including striped bass, I think, even the Great Lakes. So anyway, that was part of Dan's work. As part of my stuff there, I got involved on several programs. One was part of the Wild Rivers Study, and so I was the Fish and Wildlife representative to BOR, to survey twelve rivers for inclusion and authorization for the Wild River Study.

Jerry: Wild and Scenic Rivers.

Dave: Yeah, Wild and Scenic Rivers. And so because where we were, examples were the Upper and Lower Colorado River, the Salt and Gila River, the Kern, upper Kern River, the Feather River, the Sacramento River, **Rogue River** the American River, upper, American River, the Deschutes, and the Klamath River. And we did a survey in company with Department of Ag and the State Fish and Game, BLM, Forest Service, National Park Service, etcetera. We took two rivers out, the Klamath River and the Rogue River and did a detailed study for, like an impact statement almost. And so as part of that, we got a crew together, there were ten of us, and two life rafts and floated the Klamath River from the Shasta River down to the mouth. I think it was a seven-, or eight-, or nine-day trip; it had never been done before. Some areas within the river, like at Orleans and Happy Camp, they have local fishing boats. And remember this is kind of like a little bit before the jet boat, but jet boats were just coming in. And so when we took that rafting down, we actually had maps and would mark significant scenic areas.

Our decision was that we should view the river from the river, not from the highway. And the twelve rivers that we did, we only had like a week to do it, we made sure that the plane landed, we got out and walked to the river and took a photograph. We took photographs from the air, and so those were published then by BOR. And so when we did the Rogue, and the Klamath River, the Klamath we did in detail and there was one stretch where we got into trouble because the rafts filled full of water, we lost all our gear but we made it through the rapids. What had happened, they were building the highway and they dumped all the fill from the highway in the river so it constricted it. The second raft was able to make it ashore, so I have a movie of the second raft going through, and then a movie of us picking up our floating gear, see our gear floated except, this is a classic. I took two cameras, one was mine, one was the government's. The government's was black and white, mine was slides; guess which camera got immersed in the water, mine. I've got a beautiful memo; I asked if I could be reimbursed. The only way I could be reimbursed for my private camera if I show that someone negligently used it, and literally, the government would sue them and I could get reimbursed. It's a beautiful memo; I love it to this day, so I didn't get reimbursed. But I didn't drown so that's the good part.

Jerry: Okay, in 1961 you're there through '66; you're a bachelor and suddenly, I think you're going to tell me Judy comes into the picture.

Dave: Well, I got an opportunity, they opened two new positions in Wildlife Services in Portland; I remember that was Animal Damage Control. They were under investigation and Leopold and others did investigations, and so they didn't know what to do with Animal Damage Control, so they decided to call it Wildlife Services and add two new functions, Chemicals and Pesticides and Wildlife Enhancement. So I transferred to Portland as a GS-12 and left Sacramento. I left in June, so I got married in December in Sacramento, so that's where I was married.

Jerry: And that was Judy?

Dave: That was my Judy. And so I might mention, I was an only child, my wife was an only child.

Judy G: And I'm an only child.

Dave: And we were the best.

Judy L: They went for quality not quantity.

Dave: Okay, I'll explain one thing about the wedding. The meal, the rehearsal dinner, we were in there; remember I had been in Sacramento. A lot of people in the wedding party and rehearsal are from Sacramento Fish and Wildlife Service. Okay, Slater had left by then and Norm Chupp was there, who I had mentioned previously who had been at Wenatchee, who had been in Portland, and been in the career with me, and he was the supervisor in Sacramento. After, well I was supervisor for about five months and he replaced me when I came to Portland. Well, a telegram arrived at the rehearsal for David Lenhart. I knew since I was going to get married, I shouldn't accept this telegram. I gave it to my wife.

Judy L: Not yet.

Dave: No, no I mean to my proposal, so I had her read it. And so the telegram said something to the effect that "an opportunity is being afforded to you for the immediate transfer to the state of Alaska for an opening up there" etcetera, etcetera, etcetera. They had faked this so-called government move for me. Now her stepfather was hard of hearing, and so I guess he went over and said "You mean they're going to have to leave for Alaska right away."

Jerry: So your friends had some fun with you…

Dave: Yes, they did.

Jerry: …and your bride…

Dave: And I just let it sweep by and let my bride take care it.

Jerry: So, now you're in Portland, Oregon, returned as a GS-12, you're heading to a brand new Division of Wildlife Services, formally, Animal Damage Control.

Dave: Within Wildlife Services, there were the three divisions, Animal Damage Control, and Homer Ford was in charge of that. Prior to that there was a gentleman named Nels Elliott. Now Nels Elliott was a wonderful man, I think he was out of Minnesota, I never had met the man individually, but every time he came to Sacramento from Portland, he would stop at the River Bain Office and say, "Hi, I'm Nels Elliott out of Portland." Other words, he did that. I followed suit that whenever I went out in the field I would stop at Coleman Hatchery, I would stop at some other place, I would stop at Deer Flat; I would always stop at a federal facility and introduce myself as a federal employee. And so he kind of set that, well Nels's son, Sam Elliot, is a movie actor. Did you know that?

Jerry: No.

Dave: Okay. The sad part was, it was about that time him and his dad are in the Dechutes River, Sam was, they hunted doves, and his dad dropped dead from a heart attack while they were hunting doves on the Deschutes. So I always felt, I was picked out, and I've always wondered; Nels was still alive when they were going through the people. The other person for the Wildlife Enhancement was Phil Lehenbauer who at that time was the manager at Finley Refuge. So we both came in at the same time to Animal Damage Control. Phil was in charge of the Wildlife Enhancement, was all the military bases, which are covered on what they call the Sikes Act. And all the Indian Reservations. Now remember, our region included Montana and some parts, programs in Alaska, ADC was in Alaska, and the Pacific Islands.

Okay, in the sequence of events, I handled the pesticides; of course, we had seven states involved. And California already had a group of three or four who worked in chemicals, pesticides, mercury poison of pheasants, etcetera. So they're well- organized, they turned out reports, they turned monthly things, so I went down and met with them. And Mark Morton was the fishery biologist in Fishery Services's who was supposed to work that area. The first thing the Fish and Wildlife Service did was establish a training course for all these new employees. Each region had an enhancement biologist and a pesticide biologist, and then some of them had a fishery biologist also. And so we met at Bowie, Maryland; it was a black college and we had a two- week training course. And, of course, that's near Patuxent, and so we actually had field trips, we had talks, we had everything to introduce us to the new program. But they also called in all the supervisors in Animal Damage Control, so we got to meet with all the research people, other agency people, USDA people. And somewhere I have a directory of that group who met, on the schedule and program. So then we came back and started in our work. Well, one of the first things I did, or was responsible for, was all pesticide use, chemical uses on refuges and hatcheries.

Jerry: Was this course, in your opinion, was this a good move by the government bringing in all these folks?

Dave: Okay, yes. The key was, remember at this period in '66 was when Rachel Carson had written her book, Stewart Udall had written a book, Kennedy had been assassinated. The emphasis was to phase out DDT, so people would call Research, say, "What's going on? What's this or that?" My personal view was that we were someone in the region to manage these phone calls instead of referring them to research in Patuxent or Denver or somewhere else, so we became first in this area. Okay, they were looking, Forest Service, BLM, other agencies, all those were looking for replacements to DDT. So a lot of things were going on, testing new chemicals; testing new chemicals on their effect on fish and wildlife.

We would be notified sometime of a new chemical. And as an example, **Azodrin** was a new chemical to be used; well, it was being used on cotton and the pests on cotton were aphids and others, but that insect was not a problem on cotton until they harvested all the alfalfa nearby, it forced the insect to go on the cotton. In September, hunters in San Joaquin Valley, California would find dead birds, pheasants, in particular, along these cotton fields. So based on that, Cal Fish and Game established a major study and Shell Oil Company's the one on the registration. So we set up bird pens, I went and cooperated down there so there'd be a federal response in there. And so we put out pheasants and quail and we put California quail 'cause it was California, and doves. And put them in pens, sprayed on cotton fields, they were in cotton fields. Well, you learn things, quite a bit. One was how they sprayed a field.

Okay, one, how do you sample for a pest on a cotton field. The guy that's going to sell the chemical, or the insect man, takes two or three strides out in the field, takes a net or a scoop for insects and says this is your problem. When they spray the field airplane, they strip it, the last spray they re-spray the edge of the field because they know that's where they're going to sample for the insects; I don't think anybody knew that. Nobody knew that that's what they really did. Therefore the field received twice the amounts of spray than authorized. On weekends, when Fish and Game would leave, I would stay in the motel and the Shell man was with me. a real So we went to the County Commissioner and we said, "Give us a map," as we called them restricted- use chemical, "Give us a map that had to be turned in of all the fields sprayed in your county with Azodrin recently." So we would have the map, the location, the amount applied, and the acreage. We went to three different fields on the weekend. Every single field we saw, not our study area, we found dead birds; one of them a 130 **Linnets.** One field you could see the kit fox tracks in the field where you were. On our study area we put the radios on two hen pheasants, released them. And we had a dog, the dog picked up three roosters that were sick, in addition to the two hen pheasants. In the pens, we'd scare the birds in the pen, the quail, and they'd run to the other end and one would tumble because the other would scare them, under stress they would drop dead. So needless to say, Azodrin should not be used.

Shell wanted to use it in vineyards, the young vineyards, and they said no; cotton fields, no there. So they decided they'd use it on orange trees. Well, I wasn't part of the study but they invited me to go look at the study. Everything was finished; they'd done the work: the birds nested in the trees, everything's beautiful. We drove out there, the first thing, a rabbit flopped over sick. They went to collect it and I said, "Don't touch a sick rabbit, never touch one 'cause you can pick up a disease from one." A covey of quail jumped up, a couple of them dropped down, one of them dropped dead. We were with Shell, they were showing us how good it was. They said, "Where're you going?" I said, "Well, I have to fly back to Portland." They said, "No, no, you're not. We're having a meeting with all the executives of Shell. We're having it in Modesto" I gave my little spiel and they said they couldn't use it on edible crops. So, after the meeting, I said, "What do you think this cost you on just orange trees?" Said, "Approximately two million dollars a year." I never quizzed him on the cotton or on the non-producing vineyards. About three years ago I get a publication, a book, and it talks about these thousands of migratory birds down roosting in trees, down in Argentina being killed by **Azodrin** And I thought that they didn't even use it, and I think it was being done for pests in trees down there.

Judy L: To ship it down there, third world countries.

Dave: In 1968 Santa Barbara ocean oil spill that was the first thing. Jack Hemphill was Assistant Regional Director. I remember Hickel was the Secretary of the Interior. The oil well broke loose off the coast of Santa Barbara, California the properties the oil hit were multi-million dollar properties on the beach owned by millionaires. Nixon a few weeks earlier had established a Federal Water Pollution and Control Administration by executive order. I don't know if you're familiar with that; that's EPA now. He did it by executive order. His intent was he would draw, remember there was a Water Quality Act a few years previous; just went through, I think, under Kennedy or maybe the first part of Nixon. So the water quality in the Columbia River in Oregon and Washington would be the same, it wasn't before. So the Federal Water Pollution Control Administration acquired biologists from Public Health, from the Fish and Wildlife Service; they took over some labs in Florida, and they created new staff from states. And so there was a battle, they were literally under Interior, there's a battle between the Federal Water Pollution Control Administration and the Fish and Wildlife Service, like who's going to handle fish and water.

Region I sent fishery biologist down from Portland and he had been a lab man, never worked in the field, never communicated with people. And we mobilized an air force, two airplanes, four wildlife agents, started to get a refuge biologists in Santa Barbara. I get a phone call from Hemphill, he's down there with Hickel. Hemphill broke his ankle down there so he had to come home. Hickel, when he was flying into Santa Barbara for the hearing, he went over to the well and the well had just broken loose more. So when he hit the hearing, he agreed with everybody that this had to be cleaned up, that this had to be done, this and this is a federal responsibility; that was Union Oil. In just a few weeks, Nixon fired Hickel and sent him back to Alaska because he was being favorable to what the environmentalist groups and state of California wanted.

So I actually, when I got there, the first meeting I had when I arrived was in the parking lot. And it was with about six or eight wildlife biologists, mostly GS fives and sevens, maybe some nines from refuges all the way from Idaho, Sacramento, etc.,etc. Said, "What in the world is going on here?" Says, "What are you talking about?" Says, "How come the law enforcement agents are flying and getting hazardous duty, we're out here working 12 hour days; we don't get any overtime, we just get per diem." And I said, "Well, what's going on here?" Law enforcement had two aircraft here, two agents, there's only need for one aircraft and two agents. I phoned Portland, Hemphill concluded, we sent one

airplane home and one agent home and that plane, instead of flying in the morning, he would fly twice a day. The Coast Guard would rather fly with us than in Coast Guard because their plane had to come from Long Beach, and it wouldn't arrive; it was too busy saving lives or doing something else. So they knew in the morning they could go out and map the oil, length of the oil. So I established spots and positions and what we would do. A lot of the stuff we did, we knew the birds would die; we had a zoo set up to clean them; there were pickups and I got there a couple weeks after it started. And so I was able to get up on the, oh I forgot the name, the military base, the air base where the missiles…

Jerry: Vandenberg.

Dave: Vandenberg. I was able, got permission to go down on the beaches of Vandenberg; there was no oil on the beaches but there was a few oil birds, but you see that oil spill went all the way to San Diego. And part of it, the Channel Islands are 20 plus miles off, the wells are 5 ½ miles off. So I went out with Fish and Game because Fish and Game had gone out with some unnamed employee, and said there was oil on these sea lions and seals. We went out, what they didn't realize was sea lions' babies, they look like they're oiled. Since they had gone along the beach and they saw these dark, the mothers are a grayish color and the babies are slick, shiny. And so we were able to show the oil didn't come ashore on the Channel Islands. And so we established, contracts were developed, not by us, but by others and part of it was inter-acting with the Federal Water Pollution Control Administration; I actually helped them.

Based on the oil spill I was directed to write a Fish and Wildlife Service Response Plan to Oil and Hazardous Material Spills. For our region. Remember California already had a response plan, so we used that as the base; that was developed as the National Response Plan. So the one we wrote here, and somewhere I've got a list, but that encompassed someone in charge and all the federal agencies; in other words, you would have a directory if there was a spill in the Columbia River who would contract and we also had a survey of equipment like airplanes, boats, etcetera, etcetera. And we did all that, okay in that sequence as years go by, there was a National Response Plan and went to five, six, seven meetings with Coast Guard, two or three international conferences on it. And we actually spent time in Washington, D.C., writing the National Response Plan.

Extra money was provided to the Service, so I was the Region I Response Coordinator; as part of my duties, we added a response coordinator for the Regional Office. We added a response coordinator for the field offices; in that case, area office managers there and they could have it for field offices they wanted with this additional money. The only thing the Service didn't do was fill the national position. So I get a phone call, "Get back to Washington for two months; it's budget time." "What for?" "Well, you're the National Response Coordinator." So I spent two months in there in River Basins, or Ecological Services, and sat at a desk in case some Congressman, "What'd you do with that money?" Which was extremely interesting; I wouldn't accept the National position. It was later filled. It was filled by Columbus Brown.

Jerry: Okay, so what year is this now?

Dave: That's probably—probably, I'm trying to see if that's; the Centennial was '76, wasn't it? Yeah, so I think it was kind of like, a lot of that activity; 'cause we got additional money in the Centennial. So it was probably like '75 or something like that.

Judy G: Watergate; when was the Watergate Report on television? 'Cause it was right after that.

Jerry: We can refer to that when we get a chance.

Judy L: Google it on the computer.

Dave: I've got some of dates; the Wild River Study was in 1963/'64. The assignment, let's see—excuse me, the other I didn't work on, I mean, I did work on, got recognition for. I'll regress: when I was in Sacramento Field Office. The Albuquerque, NM office had the proposed Southwest Water Plan. Have you ever heard of that thing? Huge document.

You know where they're going to get the water? Out of the Columbia River. They were going to move the water to Nevada and Arizona. They were going to move it down in Harney Lake, etc. etc. build reservoirs, transfer stations, they'd take the water out during flood stage, they'd move it down to replace the Colorado River water for Arizona, California, Nevada, etcetera. Slater was in charge of a lot of it, so he was in Washington, D.C. and Albuquerque. So I get a phone call when I'm down there, says, "Oh, by the way, you have to write the wildlife aspects of this movement of water for California, Nevada, and Oregon. Well, think of that out in the desert, you're moving fresh water down to Arizona and you've got those dry lake beds that you can fill in, you know sometimes they fill in, Malheur, for example; you could have a tremendous amount of waterfowl down there. And then, of course, by adding water canals, and if you made of them dirt lined you could have antelope coming in, big horn sheep; you could have all sorts of stuff.

Jerry: You had a number of special assignments which are what?

Dave: Yeah, from '66 to '86. So the Department of Interior and Fish and Wildlife Service representative on the EPA, U.S. Coast Guard, Regional Response Team; their Region is 9 and 10. I developed Response Plans and coordinated all hazardous responses; that was for twelve years so we could go backwards, so that was in '74; that was okay. I developed the National Oil and Spill Hazardous Waste Response Plan, as the national coordinator that was a two-month assignment. Responsible Coordinator for all Hazardous Chemical Response, assisted in developing the National Pesticide Monitoring Program.

Actually developed the one for National Pesticide Starling Monitoring and indirectly in other words, they collected starlings nationwide and we had our trappers collect them. In Region I I had 32 different sites to collect, 32 trappers; 10 starlings per

site and they'd send them into the lab for analysis. I would help provide shipping materials, such as dry ice, and instructions and everything else because it is considered hazardous. And in that sequence, 30 of those trappers came through with that. After I left, they turned over to the states and they're lucky to get hardly any collections by states. In that collection of starlings, they decided they would look for metals; well, you don't shoot a starling with lead to look for lead. So I was able to get some of the early steel shot and I shipped it out to all the trappers in my region, 32 different trappers. Actually, we could ship it to the state supervisor; he would disperse it to the trappers.

shot starlings without contaminating them; and steel shot, you know it's steel, that's iron. Instructions were you ship it in dry ice to whatever the lab was, contract lab, and some trapper down there in Texas wrote, says "I keep drying it off, it keeps wetting all over." (Laughing) Now I went and put dry ice; I used Styrofoam tropical fish boxes, I don't know if you ever saw them?

You know they're ideal to put dry ice in 'cause they're cardboard box they can be; they have been mailed from overseas, cardboard box perfectly in Styrofoam, perfectly sealed. So I put dry ice in there just to see how long it would last, it'll last a week.

Jerry: It vents properly too without blowing up.

Dave: Yeah, yeah, they breathe out so when you ship them by plane, there's special; they can't put them where there's dogs, anything like that, because they actually breathe a little bit.

Jerry: And your job at this time was still at the Division of Wildlife Services?

Dave: Okay, I'll explain a few things that happened in there. I was the National Geothermal Coordinator. I was on the impact statement being developed by the Department of Interior for the Geothermal Program and served on the National Team and wrote the Fish and Wildlife aspects of, there were three areas, the geysers, Salton Sea, and it kind of slips my mind what was the third one; the third one was in California. Okay, the geysers is hot steam; it exists, it creates. Salton Sea is the cruddiest, salt water, underground hot water. So when you write a statement on geothermal as the affect and the geyser, centrifuge it to get the particles out; it's like steam out of a pipe. Klamath is an example, where it's hot water; they just run it through a radiator. Okay, Salton Sea, you have all this horrible crap in it, so when I wrote the statement, I said, "All these trace elements and stuff at a high level is going to be **hazardous** to fish and wildlife." And I got castigated by representatives of Interior, so I called a special meeting in the Regional Office with the U.S.G.S. specialist on hot water. And he said, "I'd rather stand beside a volcano than I would be involved with some of that geothermal stuff." And so they had the Interior Western Field representative concur that it was okay to leave those statements in the impact statement.

I was at times, two different periods, '71 and for a year or two I served in the regional office as a National Regional Environmental Coordinator, which meant that every product that went out under the Regional Director's signature would be reviewed by me to make sure the fish and wildlife aspects were correct. I got involved indirectly when I misquoted Idaho Power and gave the wrong name and somebody caught that in the regional office that isn't, whatever said, "It is Idaho Power." But I gave them a different name. Said, "No, that's Idaho Power, you've got to…" Bill Hazeltine did that until he retired. I was the Regional Acid Rain Coordinator. At times I was Regional Raptor Coordinator; that includes eagles. Because we had trappers in every county that went in the field every day, I had them provide to me where the eagles nested. So I had the best data, more than the state had, more than any research people did, provided by trappers. As part of that, in Wyoming, Colorado, and Montana, Denver Research has eagle transects, winter transects where they fly random north/south flights to count how many, I think in January, how many bald eagles they see, golden eagles. And so we did the same thing here for Oregon and Idaho, and based upon our surveys, we determined we didn't count enough eagles to make it a survey. That was under Boeker, out of Denver Research. I was Regional Coordinator for Investigation of Fish and Wildlife Mortalities. Now EPA, if it was pesticide-related, you're supposed to fill out an EPA report and send it in. I understood this was the only region to send one in. Everybody had the same instructions. Based on that, I gave several presentations to EPA staff. They would get questions on how to control moles and gophers, can you use poisons, can you use traps, so I gave programs to their staff, boomers, which are mountain beavers; nobody knows what they are. I was, okay, I won't mention the name but one day I'm in the office and Phil's in there, Clint **Lostletter** was in charge of endangered species, he was a friend of Finley; lived next door. So when he retired, the Regional Director just, his last assignment; he'd been in charge of law enforcement.

Jerry: It sounds like your bosses thought that you didn't have enough to do, Dave.

Dave: Yeah, well anyway, Kayler Martinson, RD came in and said, "Phil, I don't know if Region 1 requires a full-time position for Endangered Species." Now Phil was handling the Sikes Act, military bases. So he says, "Phil, would you take this on, and then you report back to me how much…" remember we included Hawaii, "how much effort is needed is this area." And he says, "Well, what about the Enhancement Program?" "We'll give that to Dave." So I was added to the Sikes Act, military base, Indian Reservations in this region. So there was a couple, three years that I handled those in addition, plus being the Contaminate Coordinator.

Jerry: Okay, so what years are we talking about now?

Dave: Five years, I think. The moved me to River, excuse me, they moved Animal Damage Control, they were downsizing it, so I went to Ecological Services.

Jerry: Okay, this is when they sent Animal Damage Control over to Agriculture; that was 1985…

Dave: It was actually a little before that. But they knew that it was in the wind that they would be moved. And so one of the major programs I dealt on and I think that was around '77, was a tussock moth spray program for Oregon, Washington, and Idaho, in the Douglas Fir. It's the last major use of DDT in the United States. And they got approved to use DDT to kill the tussock moth. And so we had been over there in the same area looking for replacement chemicals, so familiar with some of the areas. And the same sites, because it was Douglas Fir that was having the problem, so the same sites the Forest Service established a program to spray. So I was in charge of the wildlife aspects of spraying, not the fish, but the wildlife. And so I established programs and collections sites for Oregon, Washington, and Idaho. So I personally did the Umatilla National Forest out of La Grande, and collected birds there, pre-spray, before spray, right after spray and a year later to show up any buildup in DDT. The birds chosen were robins, and juncos; see robins feed on the worms and they're early when the ground is wet. The juncos are a ground nesting bird and they feed on insects and things, and the grouse are there year round, they're a resident. And so we established sites and collections. So I collected up on the Coville Indian Reservation, Washington State. We met with them, and they have what they call game wardens, in other words, they also are police wardens. And so we met with them and the game wardens would collect the grouse. I didn't want to be in a situation where I was collecting game birds, like some Indian would see me with 30 grouse or something like that. And so what you did when you collected the birds, you'd put it in a tin can and sealed it, and then it went to a freezer and the Forest Service handled the birds after that.

So I collected the robins and the juncos. And up in Idaho it was assigned to a different group and the net effect was there's a report prepared, which is this report here. It gives the date '74, excuse me, for the Forest Service. One of the problems with the reporting aspect, you have all these other things the Forest Service is involved with, did they kill the bugs, were there any other fish effects. So the information I wanted out, didn't get out for a long time. So this is an example of the report I prepared on the fish and wildlife aspects. The net effect, we saw buildup and we saw a drop down, but we didn't see hazardous levels; that was the net effect, but it took quite a bit of time.

And in Washington, the grouse there at Fish and Game was to collect. So on the Indian Reservation, all collections were made; this is before and after. And Washington, in the Game Department, they took six guys out and they went out, went through all these game areas, they turned in about a total of five grouse, 'cause they couldn't get any grouse. And as an aside, or to my view, some of the most underrated people were the trappers. Those guys are out there every day, they know what they're doing, they make wildlife observations that you don't know about.

Jerry: So how did the Fish and Wildlife Service find these guys, what you call trappers?

Dave: Okay, yes, the history of it was if you go way back, the agricultural A&M schools in each state actually had programs, Animal Damage Control Programs, which included mouse control, baits, poison baits, you know, like up in the Dakotas for ground squirrel, the whole shabang. But each county had their own program, so you had a guy that worked for the county for thirty years, maybe three years he wasn't funded, he retired, there's no retirement, no nothing. So the federal government, when they switched it over to Interior, Biological Survey actually in the '30's. We have a warehouse and a manufacturing plant in Pocatello that makes all the poison baits, all the coyotes getters, the whole thing, and produce and ship it out as ordered; gopher bombs or getters, the whole thing, worked with cyanide, zinc phosphate, strychnine, 1080, the whole; I was in charge of the annual inspection of that come up with the review if things needed to be changed or anything on that. Well, the programs, they were counting people that the federal government picked up within the program, they're funded still by sheep men, cattle growers, et cetera. See if this shows, like California probably had about 90 trappers, so historically they were county, now they're federal employees. Some of them drive private vehicles on mileage, some drive government vehicles. In the old days, you had to furnish your own traps, now a lot of them are provided traps, some of them have horseback, snowmobiles, the whole shabang. And here's kind of a side example here of the funding…

Now the money is paid up front, some comes from Fish and Game, some comes from the U.S. Public Health, some comes from Department of Agriculture. Say you have a rabies outbreak, and all a sudden you need ten guys to catch all the skunk, and all the foxes, and all the wildcats, and raccoons in San Diego County, which we did try to exterminate. There was a girl waiting for the bus and she got bit by a bobcat, there was a famous race horse and it got rabies, got bit by a rabid bobcat. So those programs, it was a whole variety and I felt; and what they did when Phil and I came in as our GS-11's, they also brought in college graduates to supervisory positions to be supervisors. So like the State of Oregon probably had three field supervisors, and, of course, the Regional Office, I mean the state office, was separate from the region. And they would have a guy in charge, assistant secretary, maybe one or two assistants. And so like in California if you had—I think there's a chart in here to give the number—here it's by states. And so you had, like California probably got like 90 trappers. Okay, at this period, there's a disease called bovine tuberculosis that cattle get. And the last spot in California was on the Hearst Ranch, in other words, they would test cattle and there's a lot of cattle on the Hearst Ranch and they had bovine tuberculosis. Where'd they get it?

Jerry: You're talking about Hearst Castle, Hearst Ranch…

Dave: Yes, but that also stretching way up all the way over to **the foothills.** And so there they discovered that the wild hogs had TB. We had over ten trappers who killed over 400 hogs. Each hog was posted by a veterinarian. And plus going out into areas nearby where possibly there was outbreaks, so there's an example of where a program lasted for three or four years and

then it folded down. So U.S. Public Health kicked in money, or others, so my view, I've worked with a couple of those trappers, you know to go out; I've been to trappers conferences where they hand out the equipment and the ammunition and this is what your funding will be and etc., etc.

Jerry: This is all part of the history of the Fish and Wildlife Service……and some of the little known things that I think that…

Dave: Yes, the Department of Interior was sued. And so the Leopold, Aldo Leopold's son did an investigation and prepared a report, and so the Department of Interior was sued by Defenders of Wildlife, and others. So I was involved in Region 1, and Dick Eldridge in Region 1, to go through all the agent's files. They have records every year of; well, they've even controlled bears at times. And like, as an example, in Oregon, 56 year records of what was caught in the traps, all of a sudden you look at the records, incidental trapping, you find, oh yeah, they catch a lot of porcupine, go through the old records, they didn't. In Western Oregon, the porcupine had moved in. Here's something that no one probably looked at or thought about, and, of course, now they have private trappers that trap bears. And they developed a snare that jumps up, instead of catching them in a trap, it's a foot snare. They take a coffee can, put bacon in it, put a little rock in the can, bury it in the ground. The bear reaches in to move the rock, it sets off the snare, the snare jumps and goes up his leg, tightens on that, and they say the bear won't fight it at all; if it's on the leg down there, you'd pull.

Jerry: Like a leg hold trap?

Dave: It just freezes them. It's like it freezes them, yes. And the guys, yeah, it's a leg hold.

Jerry: Rather than a leg hold trap.

Dave: Yeah, rather than a leg hold trap.

Jerry: What are some of the studies that you're proud of that?

Dave: Over the years I worked closely with the services Fish and Wildlife Biologists. I would investigate fish and wildlife kills in the region, collect samples for disease and/or pesticide analysis. A major study was suspected kill of Canada Geese in the Umatilla National Wildlife area. Heptachlor treated grain was the suspected cause. Other wildlife losses were suspected.

Okay, that is produced, any seed grain that the farmer buys eastern Oregon was automatically treated, with Heptachlor that includes our refuge where they have tenant farmers. Geese started dying on the Columbia River, during nesting season, etc., etc. Because I'd done those nesting surveys in the '50's, I had excellent nesting data. Research asked, 0 "Now when you've been out in the field, how many dead geese did you find on the nest or off the nest?" I said, "I think I saw one near a nest in five or six years." Well, they'd find 20, 30, okay, "How many abandoned nests did you find?" "What do you mean abandoned?" "Well the next year there's still nest, other's been out there for ten, eleven months." Said, "Well, generally none." Well, they're finding nests where the bird had covered them over, so as part of that, we discovered heptachlor in Geese and their eggs.

So I referred that to research, Denver Research, Dr. Chuck Henny and Larry Bluss did a study out of the Umatilla area. Well, part of it was they discovered that it was heptachlor, so Henny expanded the study beyond the geese and put up a **series of raptor and other bird** nesting boxes and checked other wildlife and a lot of it on the refuge. So part of the thing was, remember now we have big honkers, these are the ones that are dying, but we have tens of thousands of other geese come in, lesser and other varieties, cacklers, you know there's several variety of geese. And so I paid for a biologist to be at the refuge check station to take samples, you take the head and analyze the brain for residues. So he could take the big honkers, which generally only got shot near the first part of the hunting season. He'd take the heads off turned in by the hunter for analysis. He followed the birds to see where the birds wandered out to feed. He found where they were feeding, well in irrigated circles. In the dry farm lands, you drill the grain in to the depth of the moisture, could be two or three inches or further, or about like that. In the irrigated circles, you harvest potatoes, it's bare land, it's sandy, it's along the river and it blows away. So the first thing you do is plant grain to put a green crop in, they're not growing grain but they're putting it in for the green to hold the soil. In the Spring when potato season comes, they kill the grass, plant potatoes; it's wireworm control is why they're using Heptachlor. Wireworm get into potatoes and leave a black line, so one of the problems was wireworm doesn't affect the grain and they aren't harvesting grain for food, and they shouldn't be using heptachlor; it was actually an illegal use.

The only Pendleton grain growers used Heptachlor on grain seed. Other grain growers in Oregon and Washington don't use Heptachlor. So we had two major areas, one in Oregon, one in Washington near Umatilla National Wildlife Refuge that were effected by Heptachlor. Hearings on Heptachlor use were held in Oregon and Washington by their Departments of Agriculture. I made the presentation about our information to all the farmers, both the grain growers and the seeders at these hearings. And when we went into the Oregon hearing in the morning, a fellow got on the radio, local radio, and said, "If you want to save the growing of potatoes and the use of grain in Umatilla County, come to the hearing and make a presentation." One farmer got up and said, "I represent Oregon Potato and I'm concerned if we don't use Heptachlor we'll have wireworm problems in our potatoes." Department of Ag says, "Well, how much potatoes are you growing?" "Well, we don't grow any." The title of the company was Oregon Potatoes and they got out of the potato business, they were growing alfalfa, and growing other crops. In Washington, we did the same thing. Well, the first thing they did, they went in and said you can't use it within so many miles, especially up in Washington because part of the grain growers where the geese nest and everything, is in Washington, not up in the tri-cities. And so the net effect, the chemical

company advised them, this is an illegal use, we won't sell you any yet. And so it's worked out,

The last highlight of my career, in the sequence of things when I was in Sacramento in the 1960's, the Bureau of Reclamation would bring water in and to irrigate more additional lands in San Joaquin Valley. California would bring more water into the San Joaquin Valley and take it all the way to L.A. The Bureau of Reclamation would open the San Luis Project and they'd irrigate this new desert land. Most of that land was owned by the oil industry because they bought it cheaply to search for oil. So when they brought new water in, Getty family, as an example, already had land in theirs so they filed for irrigation water, section by section, except that's illegal 'cause you can only have 160 acres, 320 for a family. But they made a special exemption; they had like ten years to divest themselves of the huge acreage. When they irrigated the land, the fresh water went down, the land had never been irrigated, the drain water picked up selenium, old seep deposits, shale, and stuff. And the selenium that had came out, went into the drains, went down into San Luis Wildlife Refuge federal waterfowl and state waterfowl areas, and poisoned the birds.

Jerry: You're talking about Kesterson?

Dave: Kesterson! So when we first heard about that, I organized a meeting with the area manager in Sacramento to be in Sacramento, brought fishery research into it, and wildlife research. A call was received by the Regional Director; they didn't want me down there. Regional Director… the last one, Myshak. Said, "Lenhart works for me so you don't tell me who I send down." So I went down there and we met at the Bureau of Reclamation, and all the data that the Bureau of Reclamation had on water quality was faulty. We had U.S.G.S., we sampled water, and had it analyzed. U.S.G.S. came on top of us, we split samples and we were correct; selenium was killing these birds. The birds were deformed, eggs wouldn't hatch, where they had had several hundred birds nests, they had zero nests the next year. It was all from the drain water loaded with selenium, which is still a problem. And so part of that, when I was there back in the '60's I went to a meeting before the drain went in. And they said, "Now our proposal is to take this drain to the San Francisco Bay down to the delta." And I said, "No, no, I'm concerned about boron and other pesticides." This was when I was a wildlife biologist, not a specialist in pesticides. And so I was on record and I sent a copy to Portland of this adverse effect, possibility, of drain water. And, sure enough, the drain water went to our refuge and had an adverse effect, so I re-entered the program. Well, the first thing I did is I wrote a Secretarial alert to the Secretary of the Interior, which Carter instituted. If an Interior representative, including the Secretary of the Interior, was coming to Region I, and you felt there was a local problem they should know about, they might be questioned on, you provided an alert. The alert would go back to Fish and Wildlife Service in Washington, and they would deem one page, it would go to the Secretary, Assistant Secretary over in Interior, and I wrote an alert on the Selenium problem.

Well, then these things start cropping up and they hit the newspapers, it hit 60 Minutes on TV, several stations, the whole shebang, and they had field hearings and several Congressional inquiries. We were asked by Congress to prepare a report on the progress, they gave us the information money, so I wrote a beautiful report called, 'Past, Present, Future.' I used those terms, not in the title, so I told what happened in the past, what we're doing now, and what we're going to do in the future. I get a phone call from Joe Blum; I'll mention his name because he's passed away. Jo Blum said, "I took this to the Solicitor of Interior in Sacramento and he feels that, that should not be sent out, that Interior should send a statement, not Fish and Wildlife Service." See that would have gone to the Washington office report to Congress 'cause they gave us this extra money. Later I talked to the Regional Director, Richard Myshak, he had signed that report to be sent to Washington; Joe Blum had pulled it away. The reason we knew it had been pulled away, the carbon copy, which shows the signatures, never came back to our office. Then one of the books I've got on the shelf, it talks about Joe Blum showing them the Secretarial alert; he was in charge of Ecological Services at that time. He had stopped that alert; he had it personally. I get a Memo from the Director's office, at some time after I had already thought I had alerted the Washington Office, says, "When you'd first know about the problem? What did you do? Who have you notified?" They never got the alert. The Regional Director had signed it, and Jo Blum had never allowed it to be sent. Congressmen Miller of California asked for a Federal Investigation of the Selenium problem in California. Under this investigation I was interviewed by a special agent. I believe he was from the Inspector General's office on what had transpired on the services involvement in the Selenium problem. I received in April 1985 a Special Achievement Award related to my work on the San Joaquin Valley Selenium poisoning of fish and wildlife resources.

Jerry: And that was Myshak that signed it?

Dave: Yes. Remember Myshak wanted to hire me, I don't know if you knew that.

Jerry: No.

Dave: When I retired, he actually got up and says, "I'm going to hire Dave, when I retire within a year, I'm going to bring Dave in to my program." He established a company; it was a sublet of another company.

Jerry: Yes, he offered me a job too and I said no.

Jerry: You mentioned retirement a minute ago, when did you retire, Dave?

Dave: I retired on January 4, 1986. I had my, literally over thirty years in with the federal government plus two more years in with the military.

And while I was accruing at that time in '84, each of the seven regions, or six regions, including Alaska at that time, we would submit our proposal for money for the region in Contaminants. I got $200,000 for just residue analysis. And so I turned out, I think, about 20 plus contracts, so I did the water quality as paid to the U.S.G.S, I paid others for running the bird analyses down there. But I also stepped out and I had fish taken out of Coeur d'Alene, I had fish taken out of Salton Sea. I had various fish and wildlife samples analyzed for Selenium as part of the Selenium Study in the San Joaquin Valley. And so when Dave Riley came back for the '85, you remember they moved it to October, so it'd be in October '85, yeah, October '85.

Jerry: The five quarter year.

Dave: Yeah, yeah five quarter, but going back to the year, the physical year '85, which is three months of '84 and '85, he cut my travel to $1500. I had to go to a hearing in Monterey which took more than that money. And so I was, in essence, ordered not to travel anymore. And actually, while I was able, when I was down there, I was out representing Fish and Wildlife Service, not Joe Blum, in essence, representing Joe Blum. Monterey had a hearing to move the contaminated water to Monterey Bay. Beautiful hearing, huh? And the Ecological Service drove me around so I didn't have to fly over everything.

Jerry: What was your grade at that time a…

Dave: I was a GS-13.

Jerry: You were a GS-13, and you're a Fish and Wildlife biologist administrator.

Dave: Yes. Fish and Wildlife. And so the last aspects, Riley was in there, and…

Jerry: You're talking about Dave Riley?

Dave: Yes, Dave, he went back. What they do is every year they meet with research, because it's really research money, it's money that we can spend, $200,000 Fish and Wildlife Service research residue analysis. But they have contracts, so we're actually using $200,000 of research to run the analysis at private labs. In other words, it's not out of refuge programs or anything like that. So I ran water for refuges down in San Joaquin Valley and anywhere else. But Dave Riley came back budget meetings, and he presented what he got and there's a $100,000 of residue analysis. I said, "My God, they cut us in half." Says, "Yeah, because you did a bad job." I phoned Patuxent, they said, "Of all the regions, you did the best job of any region." As an example The Albuquerque Region had spent every penny on the Rio Grande River. What I had was a kind of touch, a whole bunch of things and see if there was a hot thing we needed to study like fish before below Klamath Falls, or something like that. An example, Coeur d'Alene, we knew heavy metal up there; the highest cadmium I've seen in fish came out of Coeur d'Alene.

Jerry: And the Kesterson, and those were major issues.

Dave: …birds that come back. Okay, in the sequence when they filled John Day Lock and Dam, refuges got everybody up and we took helicopters and we had the game Washington Sunnyside and Game Farm, we collected in April all the goose eggs, nest by nest. And they were numbered and they hatched those eggs, they had over 90% hatch. And the birds were re-released; the reservoir went in about a month later. Okay, regress a little bit, when I found salmon spawning in the Snake River, I determined to look elsewhere. I looked further up the Snake and I can't give the location, but I found salmon spawning. I did take Bureau of Commercial Fishery people with me and state people in time to see the unknown salmon spawning. Remember when they filled the dam on, above Clarkston and Lewiston? Was that High Mountain Sheep or was that one; whatever the dam was.

Jerry: It was Dworshak

Dave: Well, yeah, it was one of those dams, when they filled it, they cut off the flow to the Snake River. What's better to go up there in October and look at the salmon reds, and I would look to a back channel; I could walk the salmon reds.

Jerry: Dworshak is on the Clearwater River.

Dave: Where I counted, was the main Snake River, 'cause I think the other dam was already in. So anyway, whatever it was, they were trying to fill it, and so there's very little flow that came down. And where I was able to see, and I have the figure somewhere like 20 or 25 reds, when I walked out I could find about three times more than what I saw. Of course, there could be false reds, and of course they still may have the eggs in them at that time.

(End MP3 010, start MP3 011)

Dave: We.got political appointees that begin to show. Like Joe Blum.

Jerry: And that would just change the whole atmosphere?

During your career, did you have a person that just really stood out as perhaps a mentor, or just somebody that was totally exemplary, Fish and Wildlife?

Dave: Well, part of it, and I've mentioned names, George Black had worked in Alaska. I had worked on the weir that he had put in when he was up there in the territorial days. George Warner, I never worked with, he was a fishery biologist here; he was in the regional office, but we went to the Archeological Society together, we fished together, we did all sorts, and so in other words I picked up the fishery stuff. I know things in my mind that I'm quite sure the fishery did not know like where the fish from Bonneville Dam come from. Do you know?

Jerry: Well, they were tulle fall Chinook, temporarily.

Dave: Okay.

Jerry: That's pre-'40.

Dave: When the state of Washington put in the dam on the Cowlitz River, they had a hatchery, they discovered that those Chinook Salmon go south not north. They are caught off the Oregon and California coast, not the Washington Coast. So they no longer wanted to raise the salmon that came into the river. So they put separate a strain in there and they gave Cowlitz Salmon to spawn at Bonneville. As an example, while I was going on, they used to have; do you ever know the Service had a Hydrologic Lab at Bonneville Dam?

Jerry: I remember that.

Dave: Yeah, and there was a building; I'd never seen the inside, but I talked to guys that worked, you know, guiding fish by electricity. How would you like to be out in a pair of waders, in the water, putting electrodes down to guide fish? That was great. I was hearing some of the old stuff. Mark Morton, I was able to go out with him, he had been an Iowa school teacher and had gone to Alaska, gone up there to one of the famous red fish lakes, or sockeye salmon that the population disappeared. And then he went down and worked on the herring, I think it was down out at Monterey. He was the guy that set all the quota for all the fishermen; he knew Steinbeck, and Ricketts, and Calvin, Dr. Ricketts, *Between Pacific Tides*, the author of that. And so then he ended up as the fishery biologist here in Portland. So when he retired, I wrote a nice little thing for him. And I said, "You all note that he is from the Midwest, and somebody had suggested that maybe salmon can live in the Great Lakes." Mark Morton said "Well, that's impossible, I'm from; they can't live there. Then Mark went to Alaska and one of the lakes up in Alaska had all these red salmon. Of course you know what happened, the population disappeared after Mark went up there. When Mark came down the Columbia River and look what happened to the Salmon and Steelhead." You kind of like a little resume of his career, the fish collapsed after him. Mark had surveyed a lot of the national parks and Indian Reservations during his career. When he retired, he was under Dale Rasmussen, the Fisheries Services.

Jerry: Dale Rasmussen.

Dave: The National Park Service heard that he was retiring and the Indians knew about it. National Park Service said, "Since he's retiring, could he go through the files for us and pull out all the stuff on National Parks and the fish that he found and the populations, and barren lakes," and all this and that. Dale Rasmussen wrote a letter and said "No, he's leaving the Service and that's it." And NPS wrote back and said, "We will pay his salary if he goes through the files." Dale said no. Then when Mark found out about it, he had saved personally all his files for all those years and he had them **at home.** Now remember he was going to write the greatest thesis on Dolly Varden; I don't know if you ever knew that. He did the greatest research on Dolly Varden ever done, where they're located; the whole history, everything. Of course, probably working with the Indians, National Parks, he discovered them; he never discovered them. He did send a draft of it to Alaska for somebody to review, that Biologist took his draft and published a lot of it. But when Mark died, he was still working on his Dolly Varden paper. And so the American Fishery Society devoted a page to Mark with his picture and the background of his fishery involvement. But he was the old- fashioned biologist from Biological Survey days. Another individual, Leo Couch, I met because FWS rehired him when he was in his '70's. He was also another old-fashioned biologist from the Biological Survey days.

Jerry: Is he one you would consider a mentor or…?

Dave: Yes, indirectly. But by talking to him, he graduated in the '30's, he did Animal Damage Control, poison crows, did this and that; he was the first Regional waterfowl biologist. I drove in the car with him, he was rehired to ascertain important waterfowl habitat through all the west and if the government should acquire it. I was the driver, and so we could converse. And he would talk about areas where he's been in the past, what this area is, when you look for it. We had a 60,000-acre ranch that had Ash Creek up in Big Valley out of Bieber in California that off the Pit River Bureau of Reclamation were going to build a dam on the Pit. And the Bureau of Reclamation was going to acquire that entire ranch and give us, the Fish and Wildlife Service, 25,000 acres of the wetlands, and then homestead all the remaining land.

And so the fellow's name was Hunt, Hunt Estates. And we met with him and I had Leo with me and he looked at all the area, completely agreed on an ideal spot. Well, it ended up they never built the dam, so we never got the land. I decided refuges wasn't interested in it, and I said, "Wait a minute. It's four times more productive than your Modoc Refuge." "What do you mean?" I said, "Well, at one time they banded 300, 400 geese on it and that's geese more than you produce. They have 'X' number of "Sand Hill Cranes that nest on it, more than Malheur." And so I went to refuges and I said, "Haven't you looked at that area." Refuge Biologists said, "Yeah, we've drove down U. S. 99 and it doesn't look good." And I said, "It's not on 99." It's not on the Pit River, it's on Ash Creek, a tributary. The owner had all the water rights, well right now I've got a brochure, California Fish and Game acquired it. I don't know; they bought it, I guess. I had gone in there, in fact, I took Judy with me because your family graveyard is near there. We drove in, I'd never seen it in my life in the spring, remember? Drove in and saw the snow geese; 60 or 70 thousand of snow geese were just clumped in there. See, it was in the spring, see nobody thinks of birds going back and see that ties; as the Pit River comes out of, theoretically, it could come out of Goose Lake, but it doesn't join anymore, it goes out of Klamath Basin. So the next stop would be up there in Klamath; beautiful. I've got aerial photographs of it, through the whole shebang. I went out and hunted on there, it's got hot springs, so it's open in the winter.

Thank you Dave for taking the time for this. And Thank you Judy for a very nice lunch.